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MEMORANDUM REPORT  
PROJECT NO. 150-2s

MILITARY CROSS-COUNTRY  
FLIGHT ACTIVITY

*Typical Busy Day*

February 1963

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SYSTEMS RESEARCH & DEVELOPMENT SERVICE

Systems Management Division

Traffic and Economic Analysis Area  
Washington, D.C.



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MEMORANDUM REPORT

MILITARY CROSS-COUNTRY FLIGHT ACTIVITY  
TYPICAL BUSY DAY

Project No. 150-25

Prepared by:

Richard G. Brown  
Richard G. Brown  
Operations Analyst

Reviewed and Approved by:

R. M. Warfield  
R. M. Warfield, Program Manager  
Traffic Analysis Program

Released by:

R. H. Seaman  
R. H. Seaman, Program Area Manager  
Traffic and Economic Analysis Area

February 1963

FEDERAL AVIATION AGENCY  
Systems Research and Development Service  
Systems Management Division  
Washington 25, D. C.

## ABSTRACT

Systems Management Division, Systems Research and Development Service  
Federal Aviation Agency, Washington, D. C.  
MILITARY CROSS-COUNTRY FLIGHT ACTIVITY, TYPICAL BUSY DAY  
Prepared by Richard G. Brown, Traffic and Economic Analysis Area  
43 pp. includ. 23 figs., Memorandum Report

Continuing changes in the quantities and types of aircraft flown by the military services are such that periodic updating of military flight activity is necessary.

This report was prepared from flight plans submitted for three peak days in Fiscal Year 1961 by the Military Flight Service Centers.

The information presented in this report describes military cross-country flight activity in the Continental United States on a typical busy day.

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## INTRODUCTION

The purpose of this report is to update a previous survey of military cross-country flight activity prepared by the Traffic and Economic Analysis Area in 1958. This typical busy day of military itinerant flight activity was prepared from flight plans submitted for three peak days in FY 1961 by the Military Flight Service Centers. All peak days assembled into a typical busy day fell on a Friday.

Military cross-country flying as used in this report includes point-to-point and round-robin flights. Point-to-point flights depart one airfield and arrive at another. Round-robin flights leave the area defined as local, usually a radius of 100 miles, and return to the departure airfield without an intermediate stop of more than fifteen minutes for the purpose of discharging passengers. Also included are local flights which have filed an IFR flight plan.

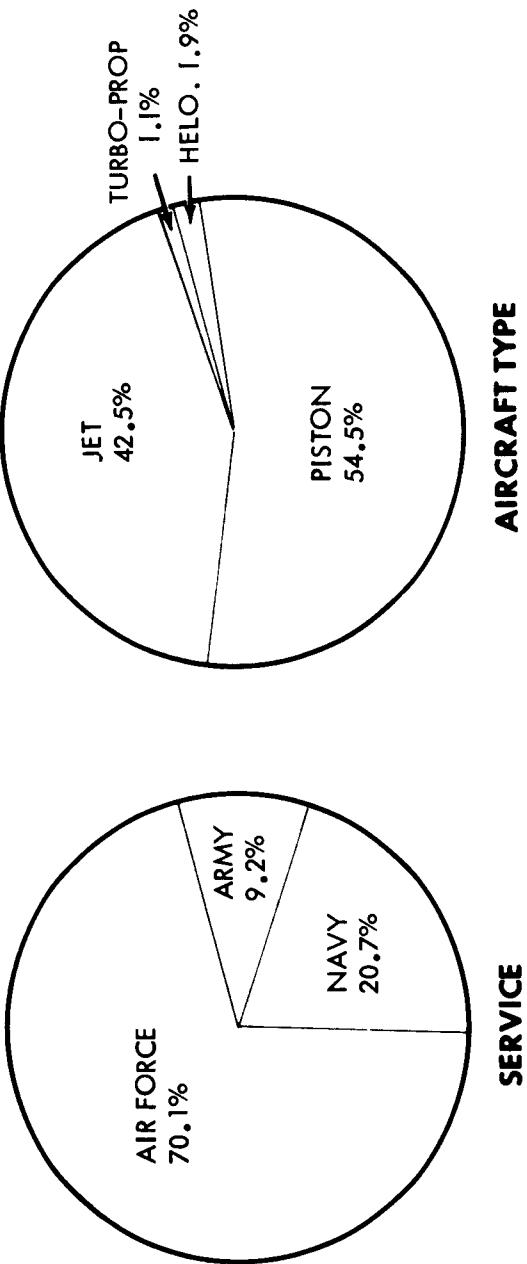
Those portions of the report indicating flight activity pictorially were prepared on the Cartographatron, an electronic machine which displays data feed-in thru a cathode ray tube used in combination with photographic emulsion.

The information presented in this report, together with data pertaining to military local, general aviation, and air carrier activity, is used to determine traffic activity estimates which indicate necessary changes in the national airspace utilization system, equipment justification and modernization.

### DISTRIBUTION OF FLIGHTS BY AIRCRAFT TYPE AND SERVICE

AIRCRAFT TYPE	ALL SERVICES		AIR FORCE		NAVY		ARMY	
	No.	%	No.	%	No.	%	No.	%
Total	5,141	100	3,602	100	1,065	100	474	100
Jet	2,183	42.5	1,897	52.7	286	26.9	-	-
Piston	2,803	54.5	1,647	45.7	742*	69.6	414	87.4
Turbo-Prop	58	1.1	57	1.6	-	-	1	0.2
Helicopter	97	1.9	1	q/	37	3.5	59	12.4

\* Includes One Airship Flight      q/ Less Than 0.05%



**DISTRIBUTION OF FLIGHTS BY CLASS AIRCRAFT AND SERVICE**

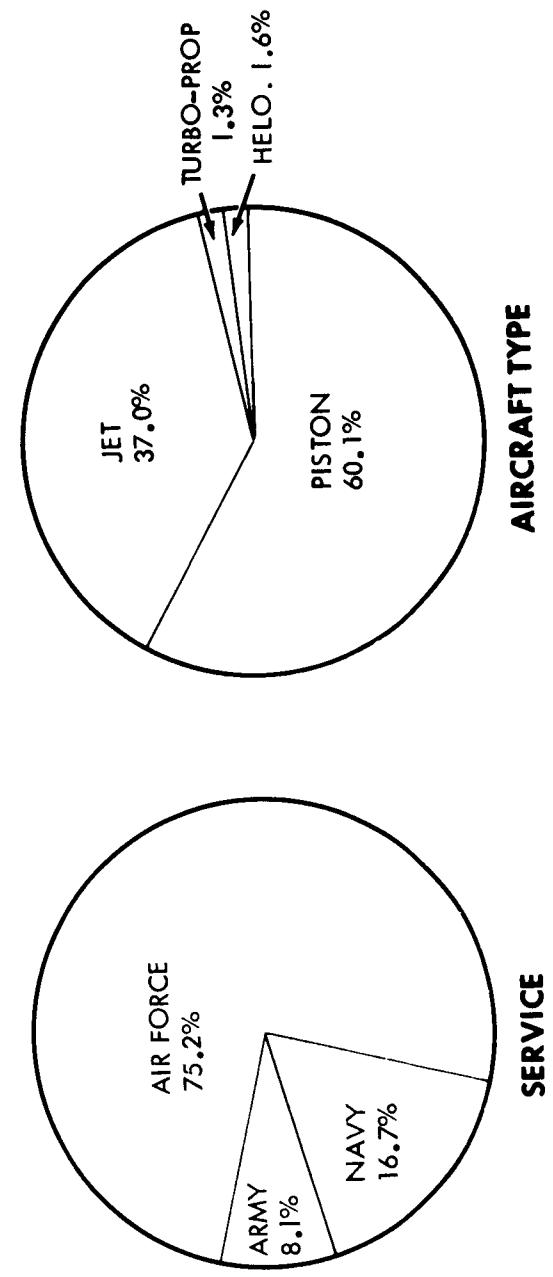
<u>Aircraft Class</u>	<u>All Services</u>		<u>Air Force</u>		<u>Navy</u>		<u>Army</u>	
	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>	<u>No.</u>	<u>%</u>
<b>TOTAL</b>	<b>5,141</b>	<b>100.0</b>	<b>3,602</b>	<b>100.0</b>	<b>1,065</b>	<b>100.0</b>	<b>474</b>	<b>100.0</b>
Single Eng. Reciprocating								
Light	131	2.5	6	.2	3	.3	122	25.8
Heavy	346	6.7	96	2.7	48	4.5	202	42.6
Multi-Eng. Reciprocating								
Under 12,500 lbs.	553	10.8	194	5.4	270	25.4	89	18.8
Over 12,500 lbs.	1,772	34.5	1,351	37.5	420	39.4	1	.2
Turbo-Prop	58	1.1	57	1.6	—	—	1	.2
Turbo-Jet								
Single Engine	1,503	29.3	1,261	35.0	242	22.7	—	—
Multi-Engine	680	13.2	636	17.6	44	4.1	—	—
Helicopter	97	1.9	1	a/	37	3.5	59	12.4
Airship	1	a/	—	—	1	.1	—	—
Round-Robin Flights	1,109	21.6	894	24.8	156	14.7	59	12.4
Point-to-Point Flights	4,032	78.4	2,708	75.2	909	85.3	415	87.6
All Flights	5,141	100.0	3,602	100.0	1,065	100.0	474	100.0

a/ Less than 0.05%

DISTRIBUTION OF HOURS AIRBORNE BY AIRCRAFT TYPE AND SERVICE

AIRCRAFT TYPE	ALL SERVICES		AIR FORCE		NAVY		ARMY	
	No.	%	No.	%	No.	%	No.	%
Total	15,324	100	11,523	100	2,562	100	1,239	100
Jet	5,668	37.0	5,258	45.6	410	16.0	—	—
Piston	9,205	60.1	6,061	52.6	2,086*	81.4	1,058	85.4
Turbo-Prop	207	1.3	202	1.8	—	—	5	0.4
Helicopter	244	1.6	2	0.2	66	2.6	176	14.2

\* Includes 32 Airship Hours    a/ Less Than 0.05%



DISTRIBUTION OF HOURS AIRBORNE BY CLASS AIRCRAFT AND SERVICE

Aircraft Class	All Services		Air Force		Navy		Army	
	No.	%	No.	%	No.	%	No.	%
<b>TOTAL</b>	<b>15,324</b>	<b>100.0</b>	<b>11,523</b>	<b>100.0</b>	<b>2,562</b>	<b>100.0</b>	<b>1,239</b>	<b>100.0</b>
Single Eng. Reciprocating								
Light	334	2.2	8	•1	5	•2	321	25.9
Heavy	829	5.4	193	1.7	106	4.1	530	42.8
Multi-Eng. Reciprocating								
Under 12,500 lbs.	1,349	8.8	480	4.2	663	25.9	206	16.6
Over 12,500 lbs.	6,661	43.4	5,380	46.7	1,280	50.0	1	.1
Turbo-Prop	207	1.4	202	1.7	-	-	5	.4
Turbo-Jet								
Single Engine	2,250	14.7	1,944	16.9	306	11.9	-	-
Multi-Engine	3,418	22.3	3,314	28.7	104	4.1	-	-
Helicopter	244	1.6	2	•2/	66	2.6	176	14.2
Airship	32	•2	-	-	32	1.2	-	-
Round-Robin Flights	5,787	37.8	4,948	42.9	569	22.2	270	21.8
Point-to-Point Flights	9,537	62.2	6,575	57.1	1,993	77.8	969	78.2
All Flights	15,324	100.0	11,523	100.0	2,562	100.0	1,239	100.0

a/ Less than 0.05%.

DISTRIBUTION OF FLIGHTS BY MISSION AND SERVICE

Mission	All Services		Air Force		Navy		Army	
	No.	%	No.	%	No.	%	No.	%
<b>TOTAL</b>	<b>5,141</b>	<b>100.0</b>	<b>3,602</b>	<b>100.0</b>	<b>1,065</b>	<b>100.0</b>	<b>474</b>	<b>100.0</b>
Bomber	594	11.6	486	13.5	108	10.1	-	-
Fighter	425	8.3	261	7.2	164	15.4	-	-
Tanker	192	3.7	192	5.4	-	-	-	-
Recco, ASW, Warning	158	3.1	-	-	158	14.8	-	-
Transport	1,566	30.3	1,188	33.0	245	23.0	127	26.8
Utility	357	6.9	166	4.6	21	2.0	170	35.9
Liaison	121	2.4	-	-	3	.3	118	24.9
Training	1,636	31.8	1,308	36.3	328	30.8	-	-
Helicopter	97	1.9	1	a/	37	3.5	59	12.4
Airship	1	a/	-	-	1	.1	-	-

a/ Less than 0.05%

## MILITARY ITINERANT AIR TRAFFIC FLOW BY MISSION

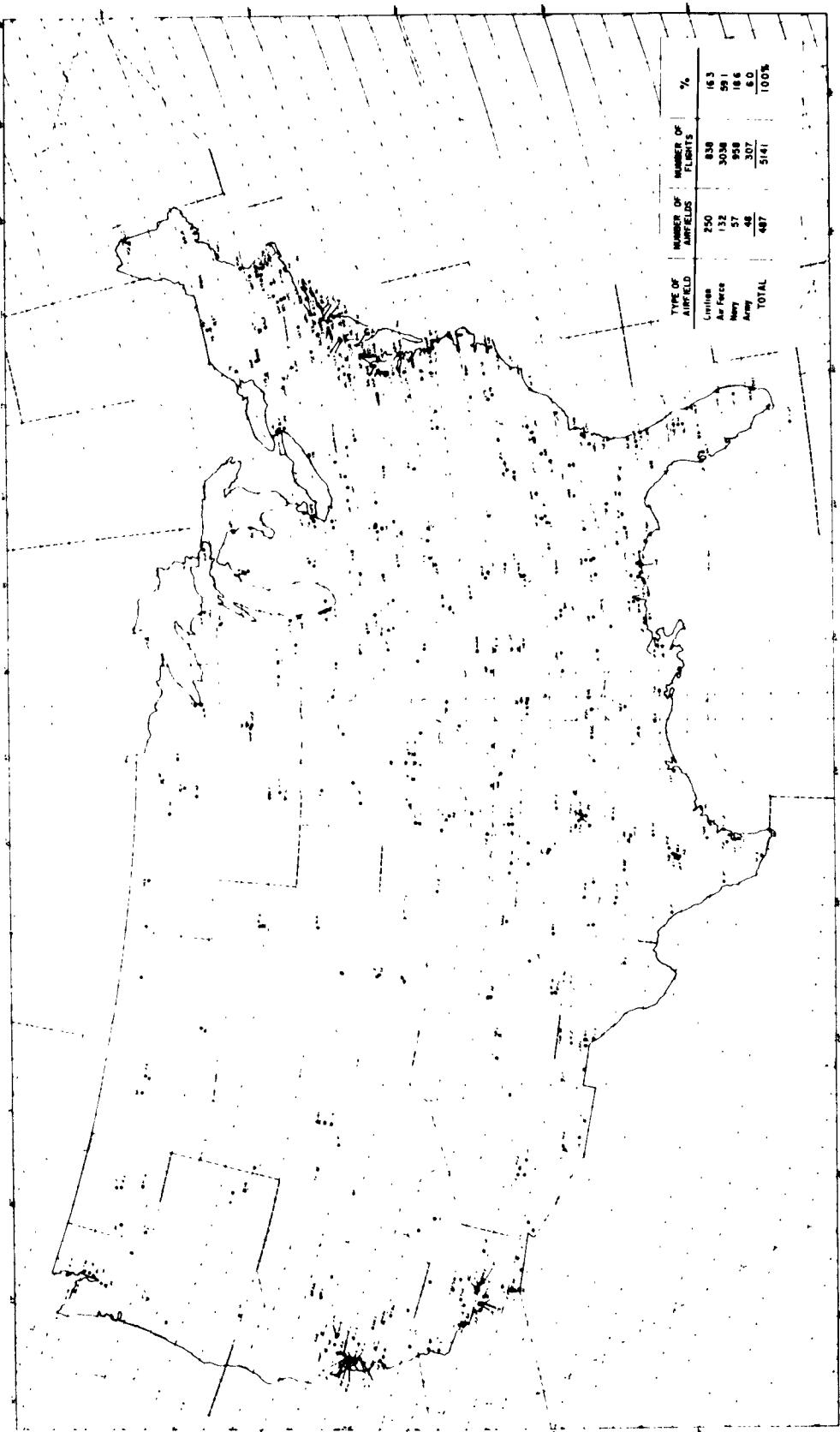


## TACTICAL AND TACTICAL SUPPORT ADMINISTRATIVE AND SUPPORT



## TRAINING AND PROFICIENCY

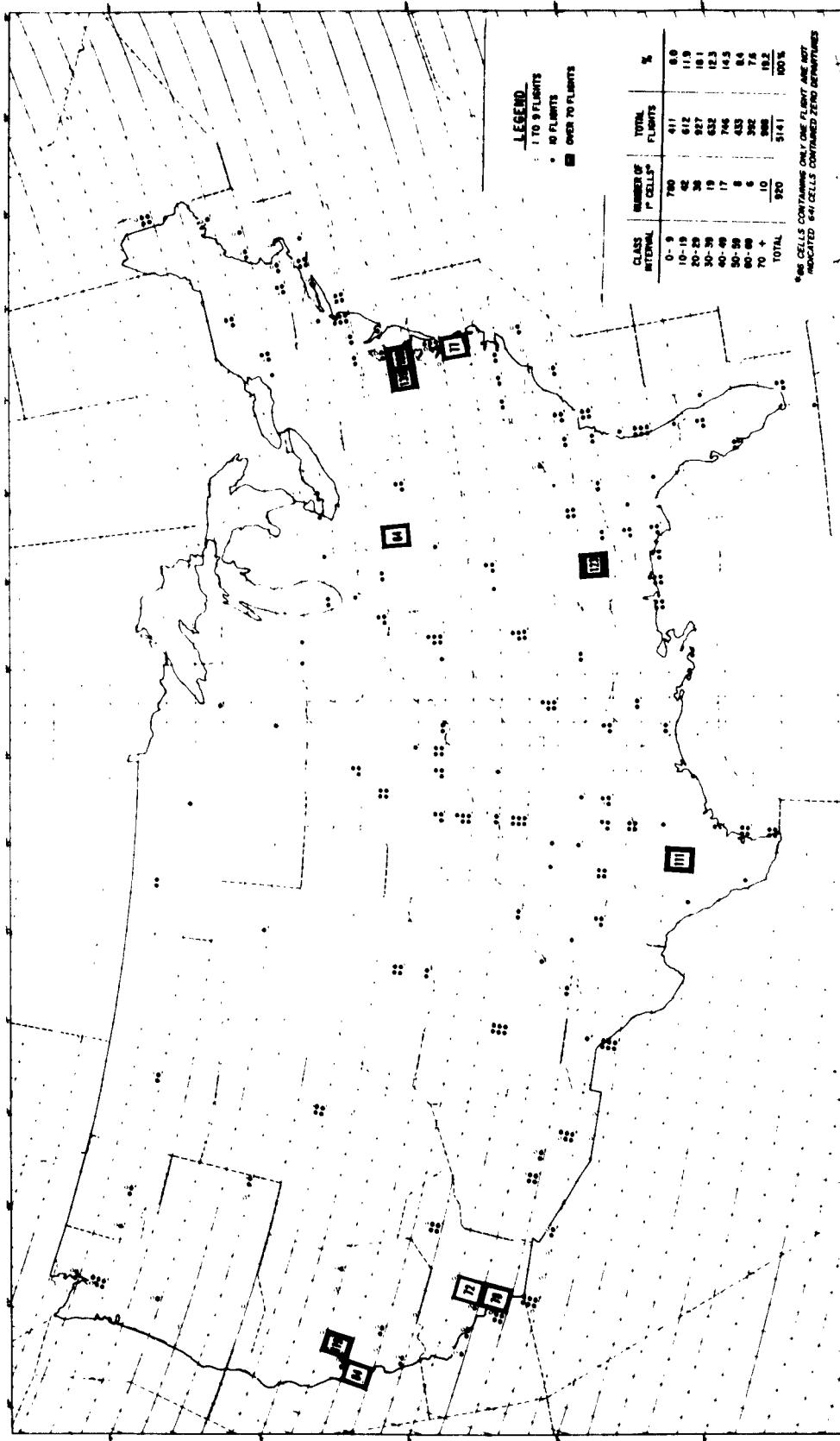
**GEOGRAPHICAL LOCATION OF DEPARTURE AIRFIELDS WITHIN ARTCC BOUNDARIES**  
**(487 AIRFIELDS)**



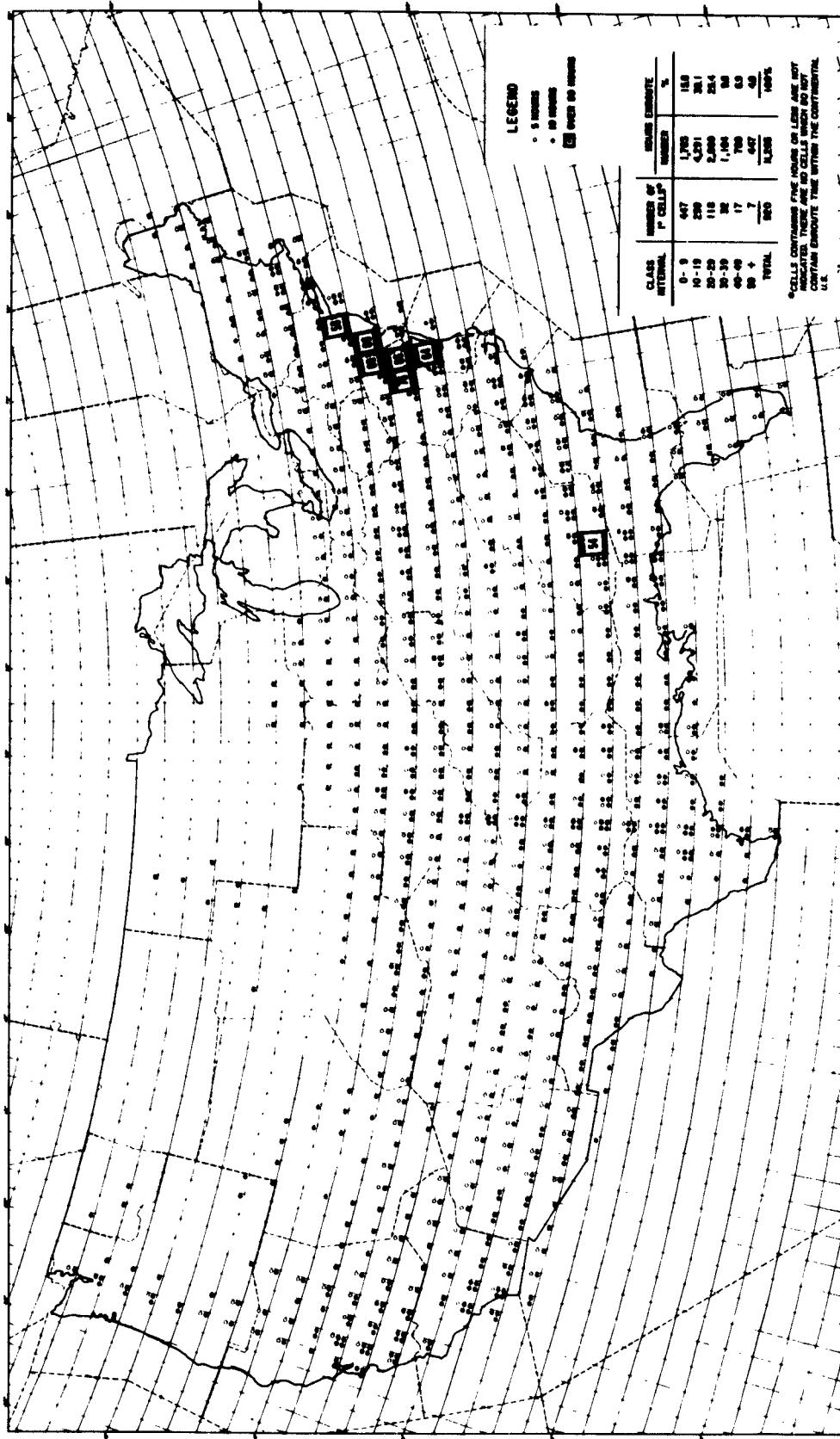
**BUSIEST 26 DEPARTURE LOCATIONS**

<u>Airfield</u>	<u>Location Identifiers</u>	<u>Location State</u>	<u>ARTCC</u>	<u>Departures</u>	
				<u>No</u>	<u>%</u>
Maxwell AFB	MXF	Ala.	2	248	4.8
Andrews AFB	ADW	Md.	29	MTC, ADC, ANG, Res. TAC	213 4.1
Kirtland AFB	ABQ	N.M.	1	SAC, ARD, ANG	194 3.8
Wright-Patterson AFB	FFO	Ohio	5	SAC, ATC	193 3.8
Tinker AFB	TIK	Okla.	10	MTC, Res. TAC	181 3.5
Scott AFB	BLV	Ill.	24	MTC, Res. TAC	178 3.4
Anacostia NAS	NSF	D.C.	29	LANT, NART, RDT&E	161 3.1
Bolling AFB	BOF	D.C.	29	MTC, HQC.	160 3.1
Jacksonville NAS	NIP	Fla.	12	LANT, NART, BUWEPS	147 2.9
McClellan AFB	MCC	Calif.	21	ADC, Res. TAC	144 2.8
Randolph AFB	RND	Tex.	26	SAC, MTC, ATC, TAC	143 2.8
McConnell AFB	LAB	Kans.	13	SAC, ANG	142 2.8
San Diego NAS	NZY	Calif.	14	PAC, BUWEPS	139 2.7
Kelly AFB	SKF	Tex.	26	MTC, AMC, ANG, Res. TAC	138 2.7
Davis-Monthan AFB	DMA	Ariz.	22	SAC, ADC	137 2.7
Nellis AFB	LSV	Nev.	14	TAC	134 2.6
Harlingen AFB	HGF	Tex.	26	ATC	132 2.6
Dyess AFB	DYS	Tex.	10	SAC, TAC	131 2.5
Hill AFB	HIF	Utah	25	ADC, AMC, Res. TAC	129 2.5
Little Rock AFB	LRF	Ark.	15	SAC, ANG	129 2.5
Lincoln AFB	LNK	Neb.	13	SAC, ANG	128 2.5
Alameda NAS	NGZ	Calif.	21	PAC, BUWEPS, NART	120 2.3
Quonset Point NAS	NCO	R.I.	3	LANT, BUWEPS, RDT&E	119 2.3
March AFB	RIV	Calif.	14	SAC, Res. TAC	118 2.3
Memphis NAS	NQA	Tenn.	15	NARTA, NART	117 2.3
Lockbourne AFB	LCK	Ohio	5	SAC, ADC, ANG	117 2.3
					<u>3,892 75.7</u>

NUMBER OF DEPARTURE FLIGHTS BY 1° CELL



NUMBER OF HOURS AIRBORNE WITHIN 1° CELL



MILITARY ITINERANT AIR TRAFFIC FLOW BY SERVICE

- 12 -



ALL SERVICES



AIR FORCE



NAVY

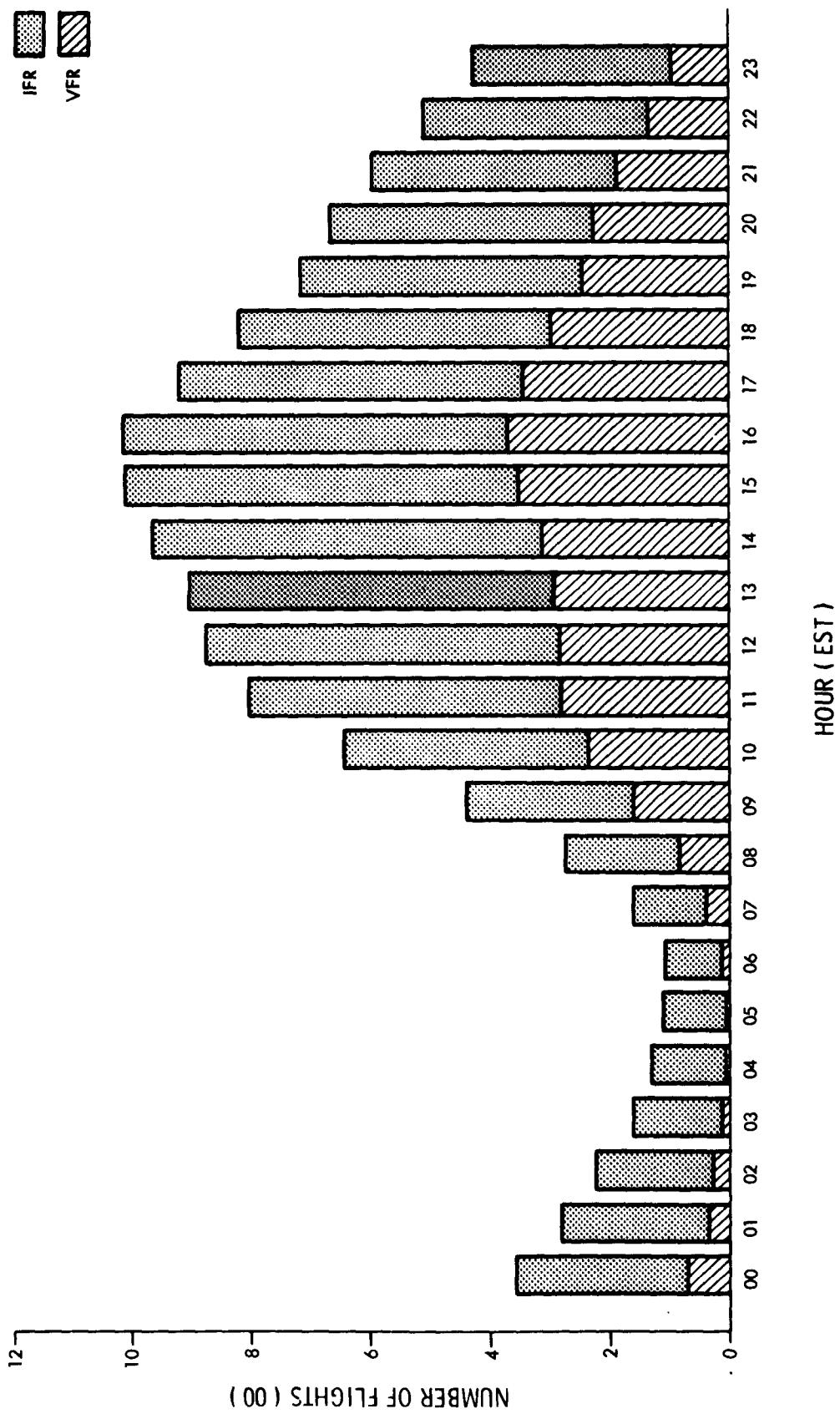


ARMY

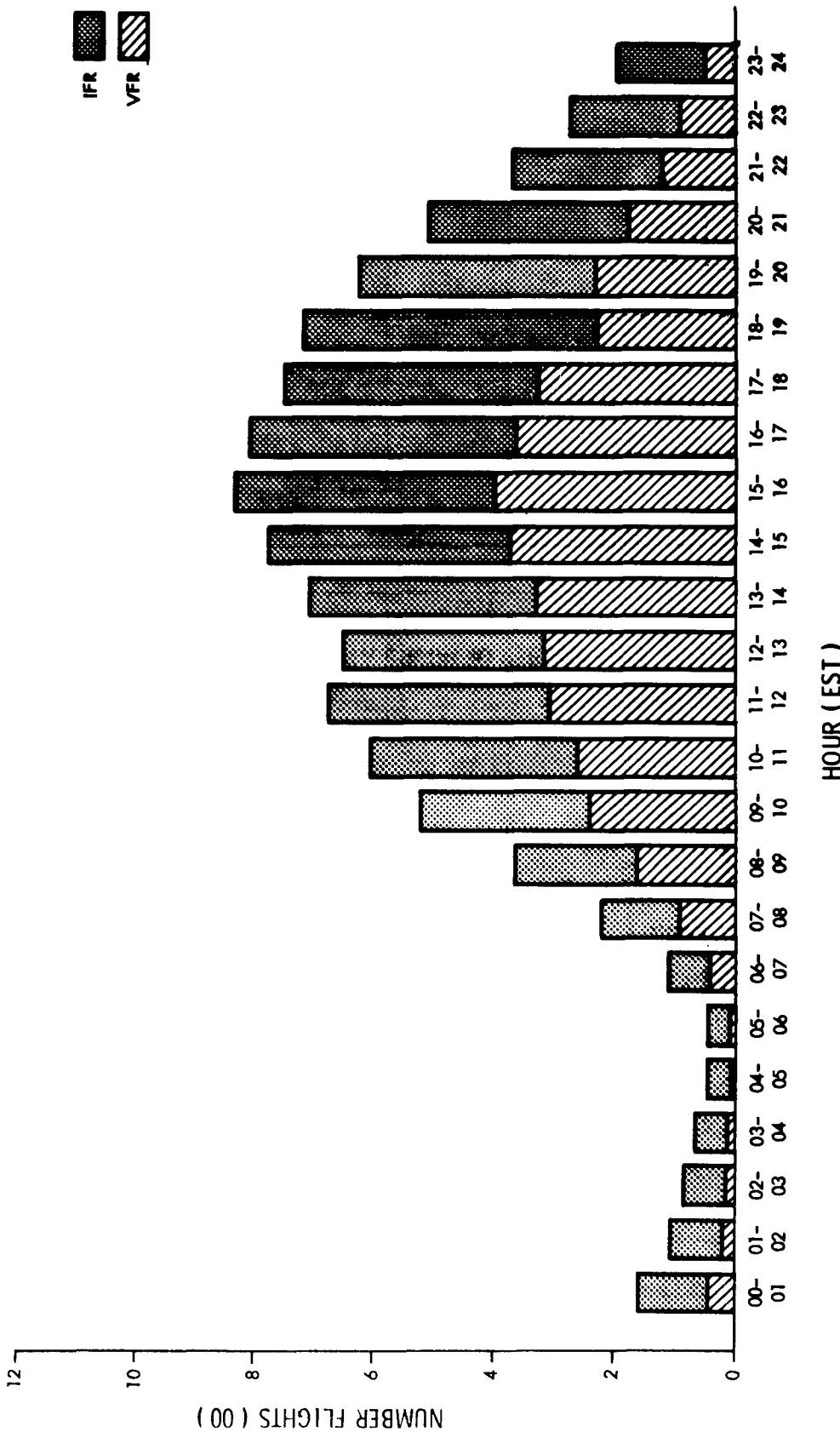
### DURATION OF FLIGHT BY AIRCRAFT TYPE



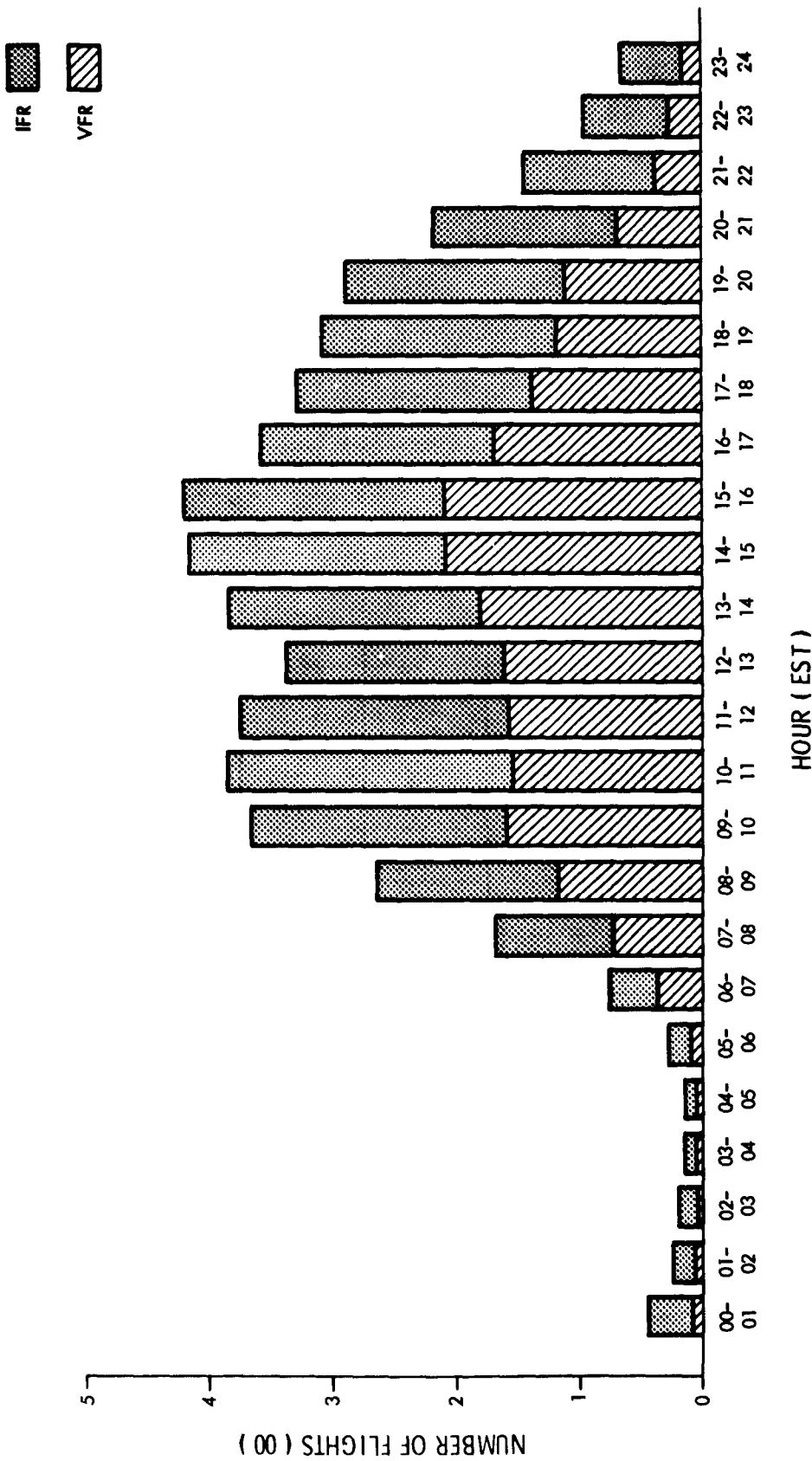
- 14 -  
AIRCRAFT AIRBORNE AT THE BEGINNING OF EACH HOUR BY FLIGHT RULE



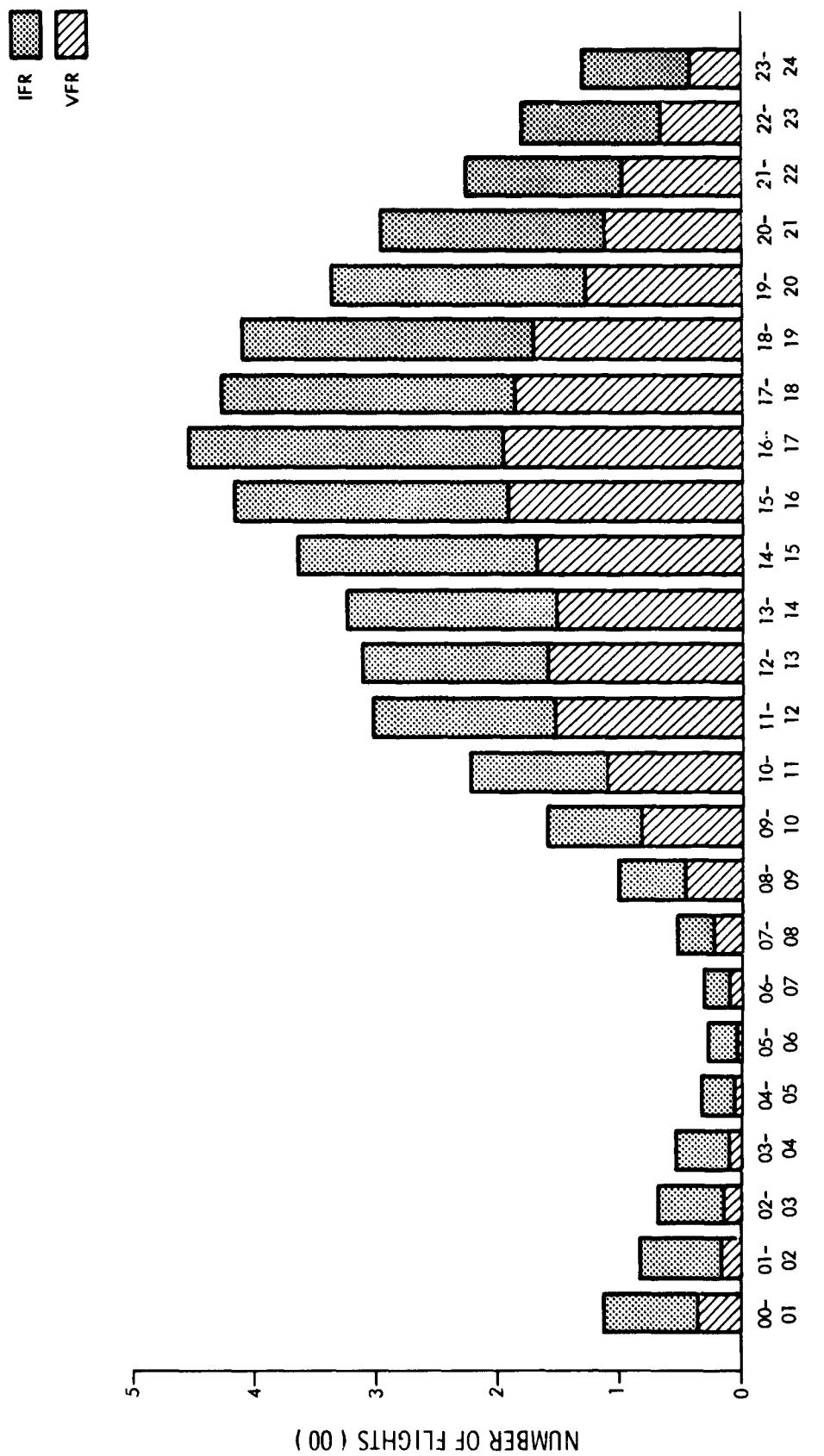
TOTAL MOVEMENTS BY HOUR AND FLIGHT RULE



- 16 -  
DEPARTURES BY HOUR AND FLIGHT RULE

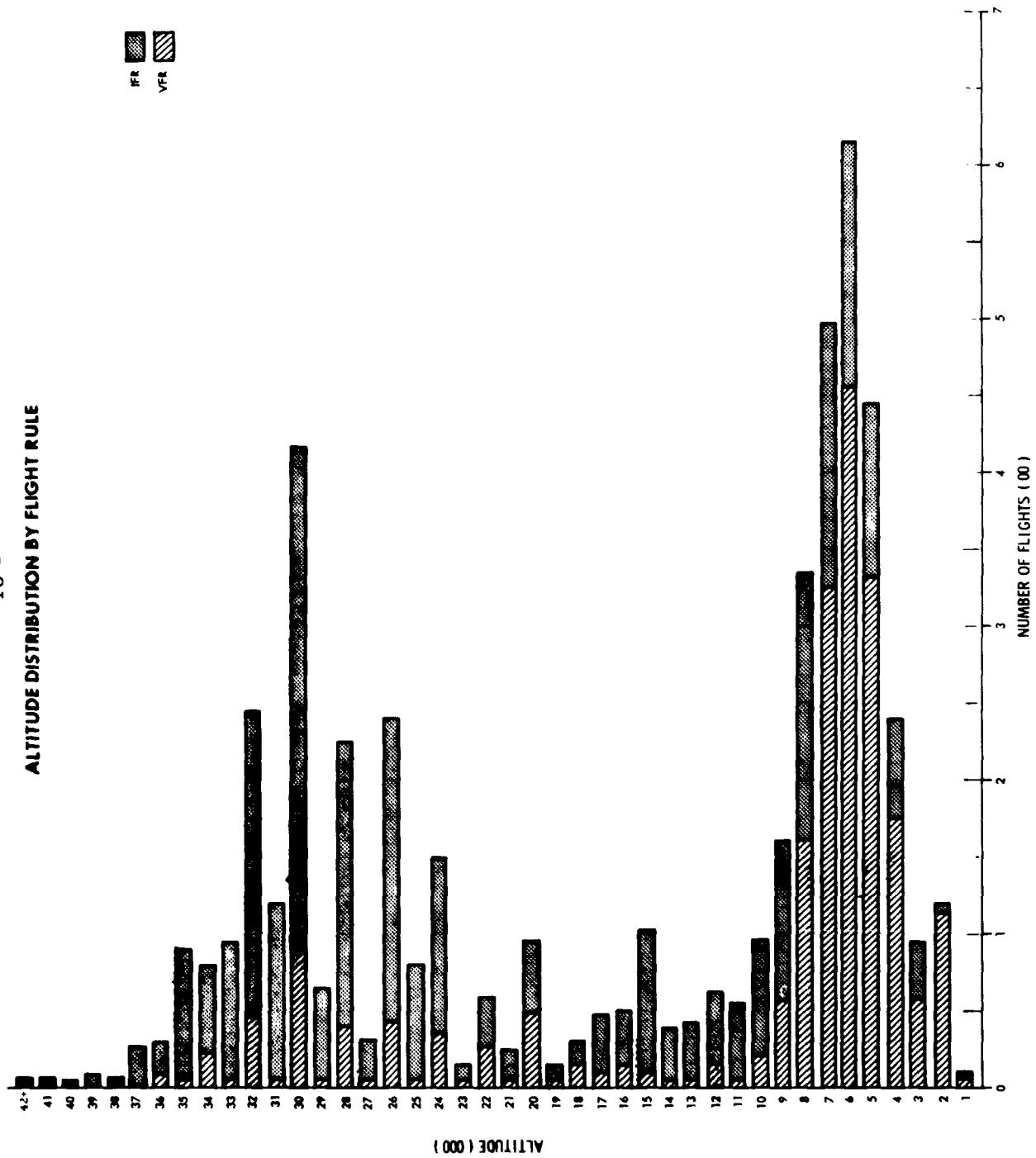


### ARRIVALS BY HOUR AND FLIGHT RULE

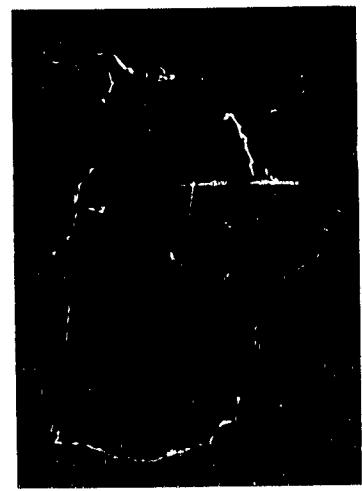


HOUR (EST)

- 18 -  
ALTITUDE DISTRIBUTION BY FLIGHT RULE



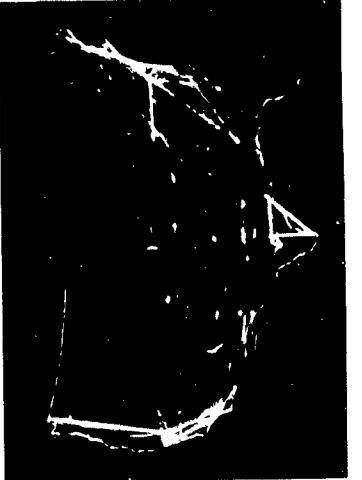
MILITARY ITINERANT AIR TRAFFIC FLOW  
BY ALTITUDE STRATA



0 TO 3,000 FEET



3,000 TO 8,000 FEET



8,000 TO 15,000 FEET

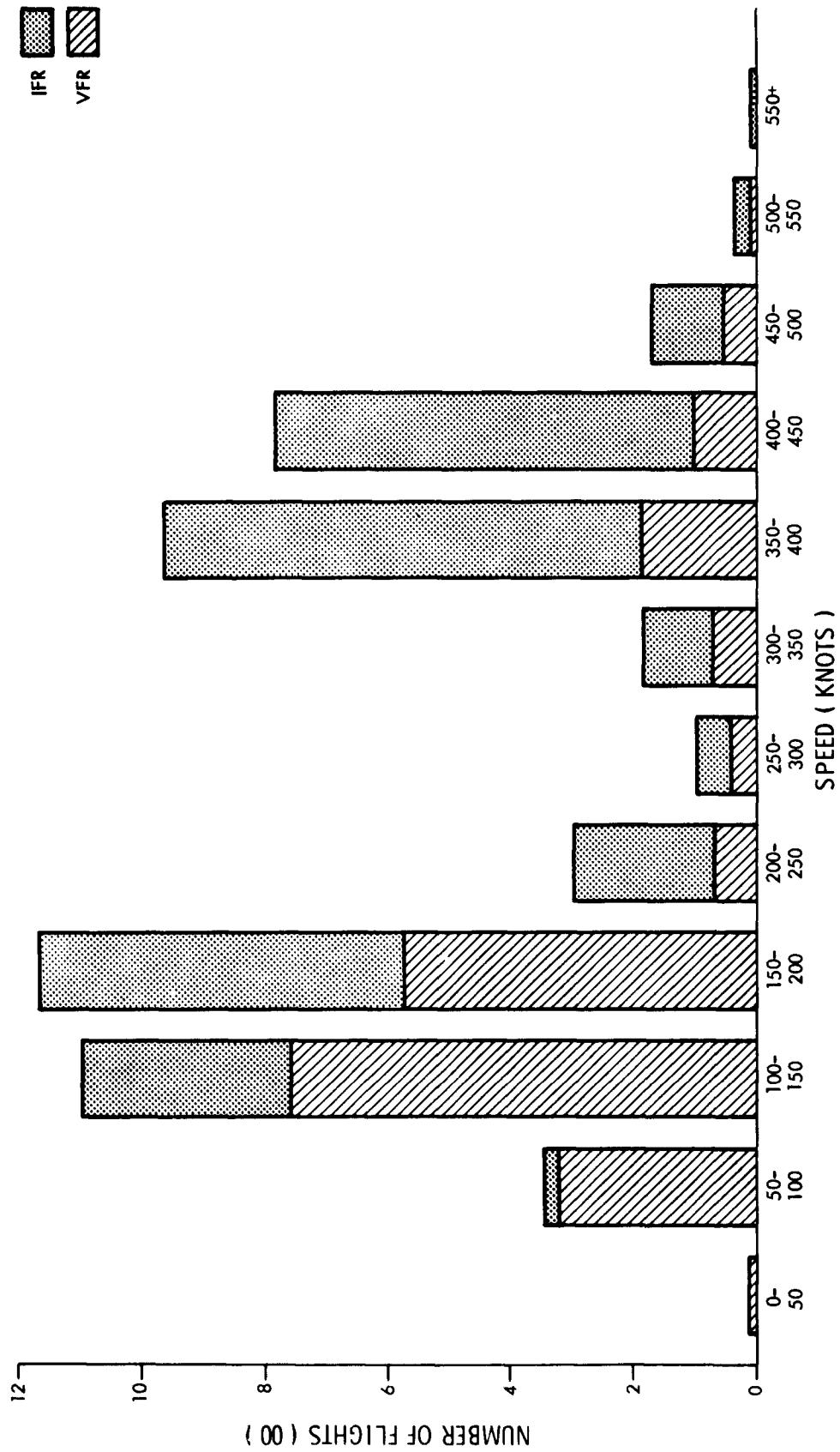


15,000 TO 24,000 FEET

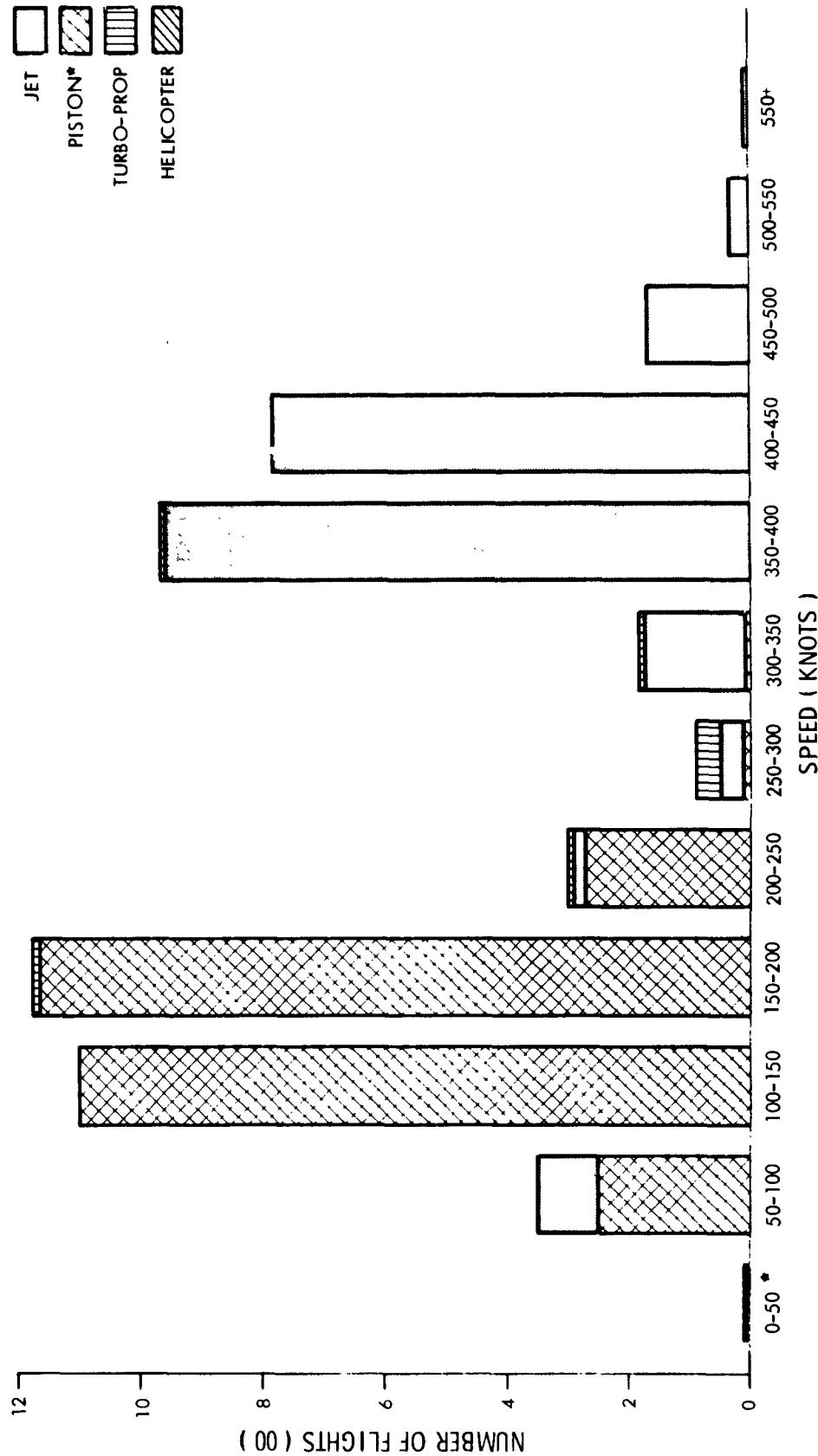


24,000 FEET AND OVER

- 20 -  
**SPEED DISTRIBUTION BY FLIGHT RULE**

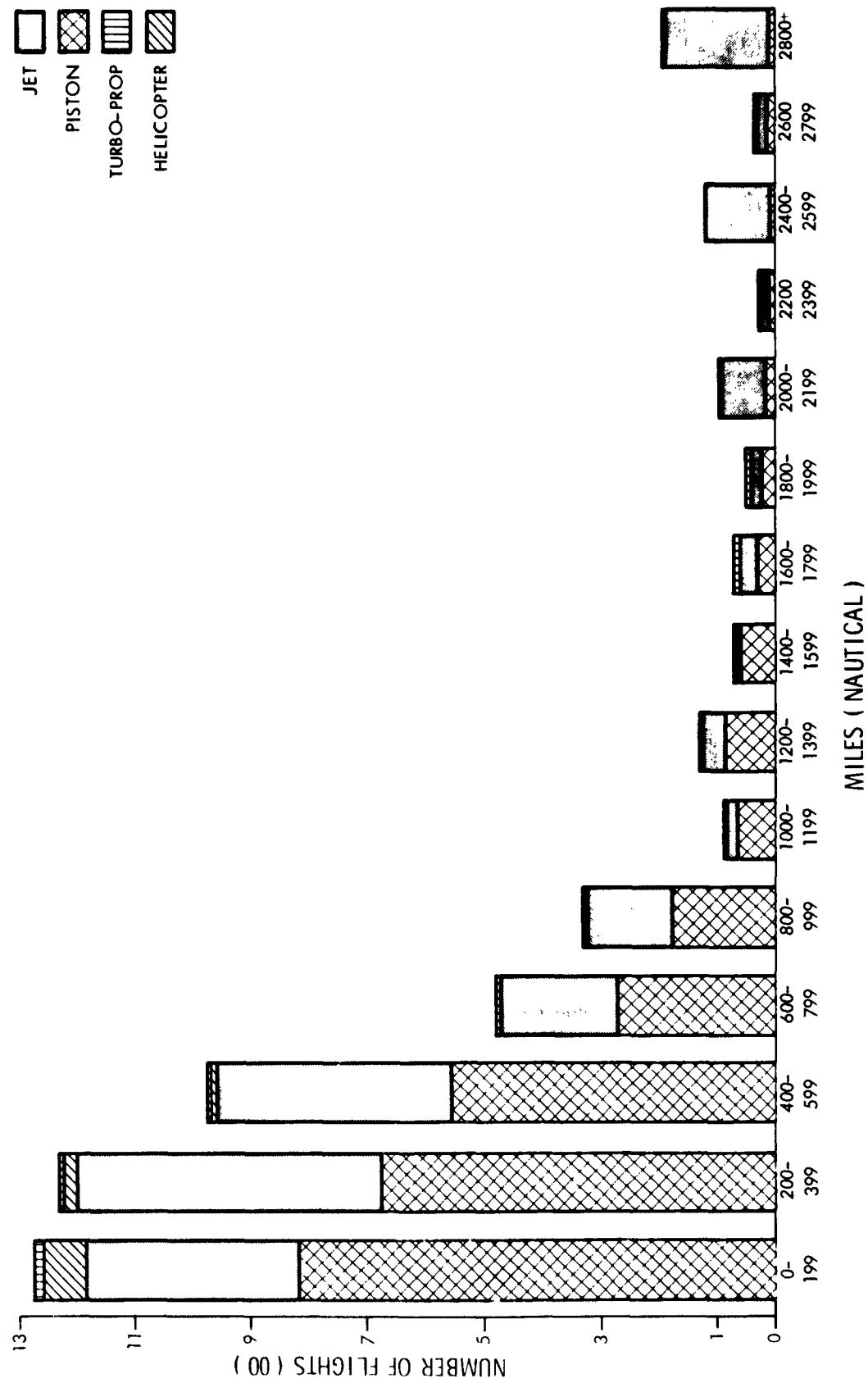


### SPEED DISTRIBUTION BY AIRCRAFT TYPE

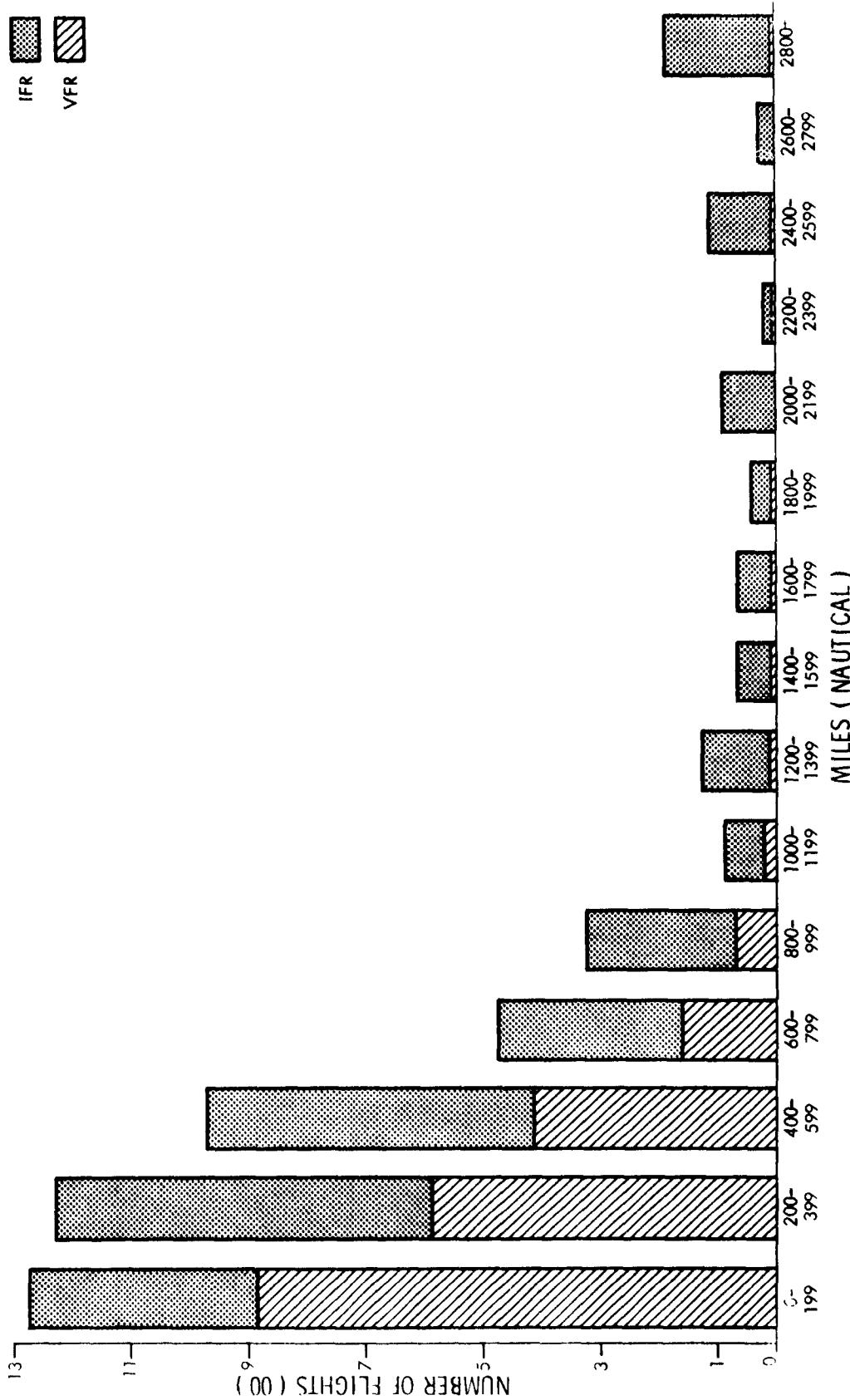


- 22 -

DISTANCE FLOWN BY AIRCRAFT TYPE



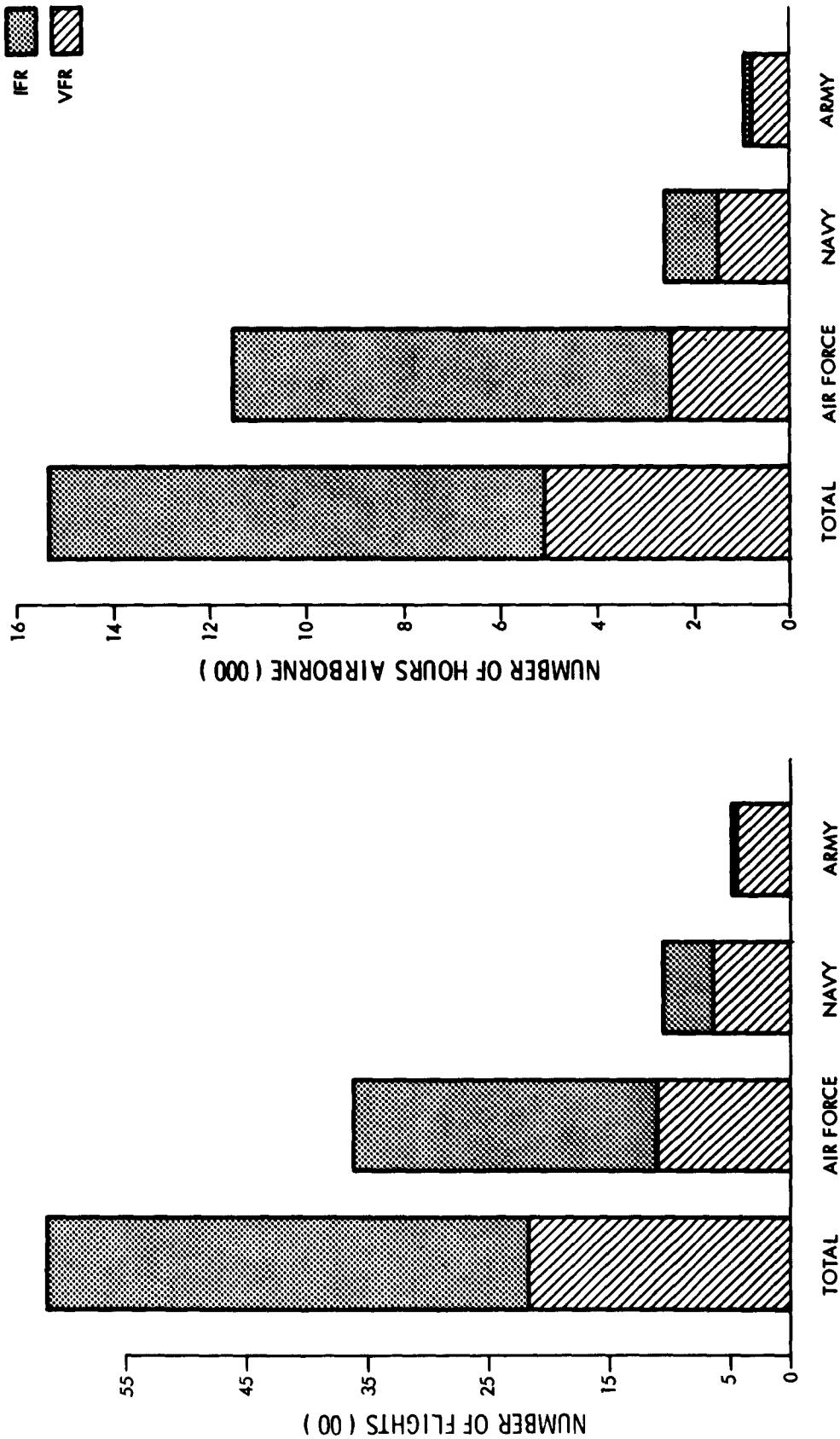
### DISTANCE FLOWN BY FLIGHT RULE



DISTRIBUTION OF FLIGHTS AND HOURS AIRBORNE BY FLIGHT RULE

		Total	Air Force		Navy		Army A/C Hrs.
			A/C	Hrs.	A/C	Hrs.	
<b>Single Engine, Reciprocating</b>	<b>Light</b>	5	12	-	-	-	5 12
	IFR	126	322	6	8	5	117 309
<b>Heavy</b>	IFR	67	165	33	71	10	24 68
	VFR	279	664	63	122	38	80 462
<b>Multi-Engine, Reciprocating</b>	<b>Light</b>	128	346	50	153	65	169 24
	IFR	425	1,003	144	327	205	494 182
<b>Heavy</b>	IFR	1,000	4,439	790	3,753	210	686 -
	VFR	772	2,222	561	1,627	210	594 1 1
<b>Turboprop</b>	IFR	42	180	42	180	-	-
	VFR	16	27	15	22	-	-
<b>Turbo-Jet</b>	<b>Single Engine</b>	1,095	1,786	990	1,646	105	140 -
	IFR	408	464	271	298	137	166 -
<b>Multi-Engine</b>	IFR	637	3,346	603	3,261	34	85 -
	VFR	43	72	33	53	10	19 -
<b>Helicopter</b>	IFR	3	5	-	1	2	2 3
	VFR	94	239	1	2	36	64 57 173
<b>Airship</b>	IFR	-	-	-	-	1	32 -
	VFR	1	32	-	-	1	32 -
<b>Total</b>	All	5,141	15,324	3,602	11,523	1,065	2,562 474 1,239
	IFR	2,977	10,279	2,508	9,064	425	1,108 44 107
	VFR	2,164	5,045	1,094	2,459	640	1,454 430 1,132

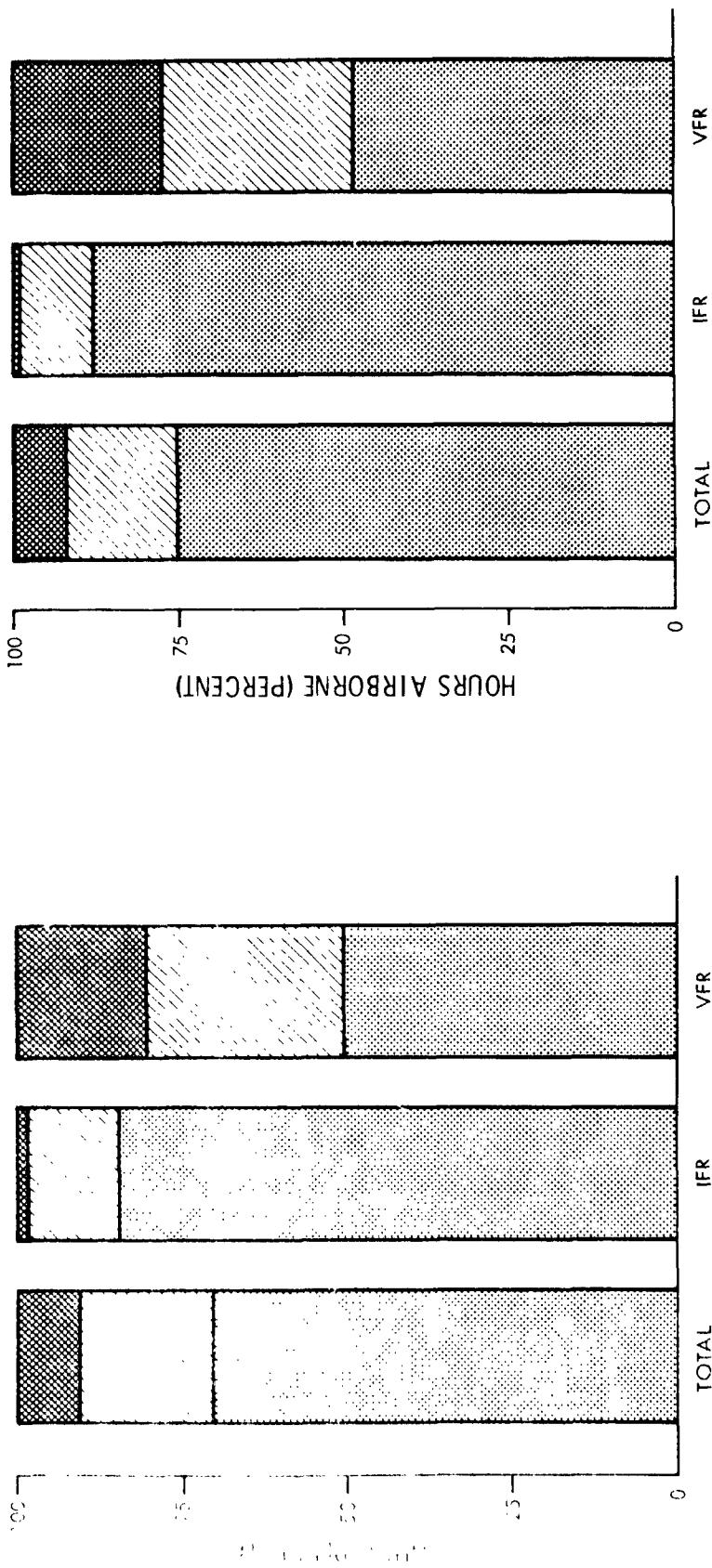
### DISTRIBUTION OF FLIGHTS AND HOURS AIRBORNE BY SERVICE BY FLIGHT RULE



- 26 -

DISTRIBUTION OF FLIGHTS AND HOURS AIRBORNE BY FLIGHT RULE BY SERVICE  
(PERCENT)

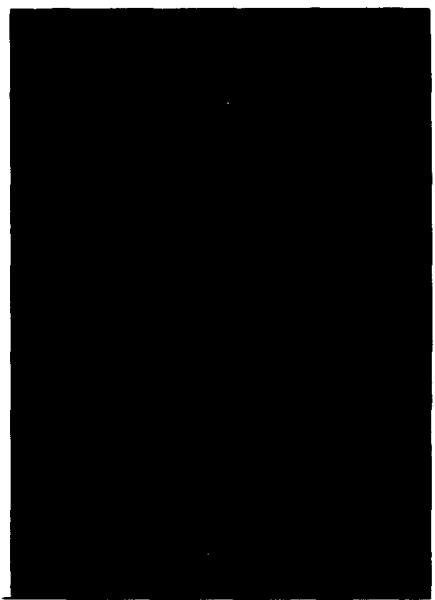
AIR FORCE      NAVY      ARMY



## MILITARY ITINERANT AIR TRAFFIC FLOW BY FLIGHT RULE



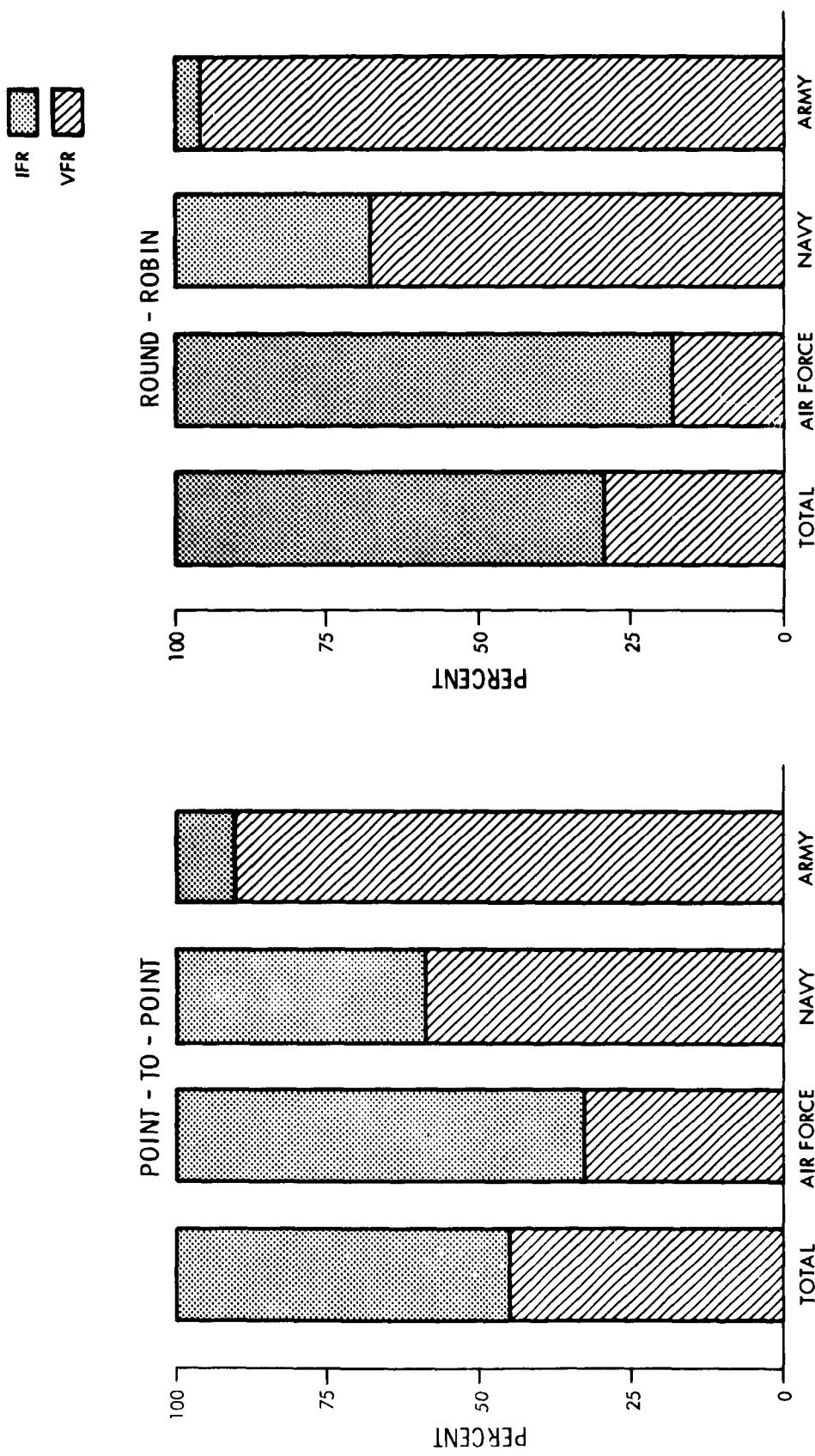
IFR



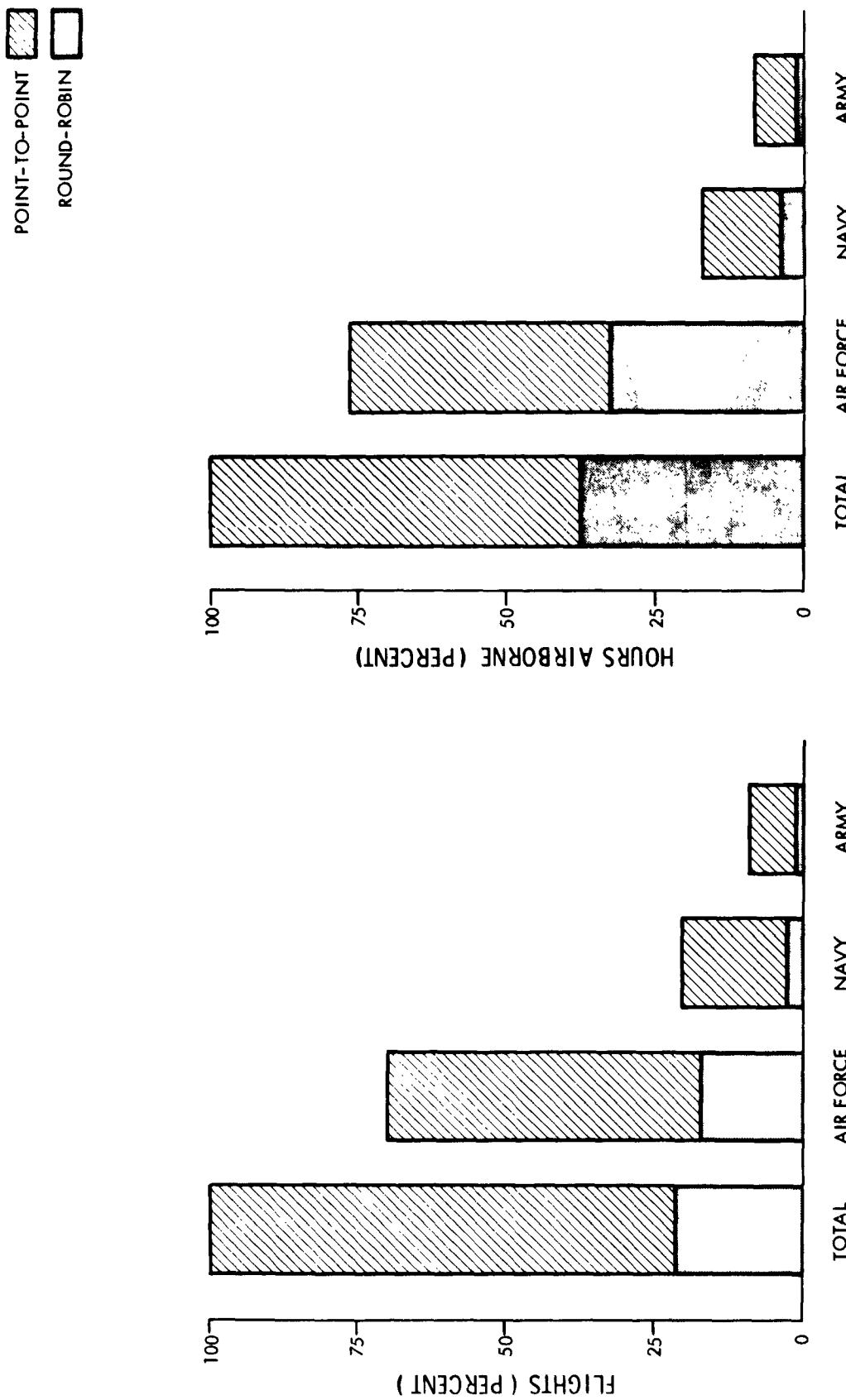
VFR

- 28 -

**TYPE OF FLIGHT BY SERVICE BY FLIGHT RULE  
(PERCENT)**



TYPE OF FLIGHT BY FLIGHTS AND HOURS AIRBORNE BY SERVICE  
(PERCENT)



MILITARY ITINERANT AIR TRAFFIC FLOW  
BY TYPE OF FLIGHT



POINT-TO-POINT



ROUND-ROBIN

**COMPARISON OF FY 1961 AND FY 1958  
TYPICAL BUSY DAY**

	<u>FY 1961 Survey</u>	<u>FY 1958 Survey</u>
Number of Cross-Country Flights	5,141	6,334
Number of Hours Airborne	15,324	16,208
Altitude Average (Feet)	15,700	15,900
Speed Average (Knots)	255	240
Distance Average (Nautical Miles)	660	613
Average Duration of Flight (Hrs.)	2:59	2:33
Per Cent of Total Activity		
Jet	42.5	39.5
Piston*	54.5	57.3
Turboprop	1.1	-
Helicopter	1.9	<u>3.2</u>
	<u>100.0%</u>	<u>100.0%</u>
Air Force	70.1	67.2
Navy	20.7	25.3
Army	<u>9.2</u>	<u>7.5</u>
	<u>100.0%</u>	<u>100.0%</u>

\* Includes Airship Activity

#### SUMMARY

During FY 1961 the six Military Flight Service Centers were requested to submit their peak day of flight activity for each month of the current year to the Federal Aviation Agency. From the data collected and forwarded, three days of peak activity were selected from each Center. These flight plans were then averaged into a typical busy day of military cross-country flight activity. For the purpose of this report multiple flights (two or more aircraft on a single flight plan) were considered to be one flight. On a typical busy day there were 61 multiple flights containing a total of 290 aircraft.

On this typical busy day of military cross-country flight activity there were 5,141 flights which were airborne for 15,324 hours. The Air Force conducted 70.1% of the flights and 75.2% of the hours airborne. The Navy made 20.7% of the flights and 16.7% of the hours airborne. The Army maintained 9.2% of the flights and was airborne 8.1% of the hours.

Jet aircraft accounted for 51.3% of the flights and 36.9% of the hours airborne. Piston driven aircraft were responsible for 45.7% of the flights and 60.1% of the hours airborne. Only 1.1% of the flights and 1.4% of the hours airborne were used by turbo-prop aircraft. Helicopters made 1.9% of the flights and were airborne 1.6% of the hours.

These flights departed from 487 airfields. There were 250 civilian, 132 Air Force, 57 Navy, and 48 Army locations. Air Force departure points accounted for 59.1% of the flight activity, Naval Air Stations for 18.6%, Civilian Airfields for 16.3%, and Army Airfields for 6.0%. The 26 busiest departure airfields, all military, made 75.7% of the total flights.

Concentrations of aircraft departures were located in the areas of Washington, D. C., Norfolk, Va., Montgomery, Ala., Dayton, Ohio, San Antonio, Tex., San Diego, Los Angeles, and San Francisco, Calif. Airborne densities were concentrated near New York, N. Y., Philadelphia, Pa., Baltimore, Md., Washington, D. C., and Montgomery, Ala. The traffic flow of Navy and Army flights was predominant along the eastern and southwestern coasts. Air Force traffic was more uniformly spread over the Continental U. S. VFR activity was heaviest along the northeastern and southwestern coastal regions. IFR flights were relatively uniform over the major portion of the country, with flights less frequent over the north-central and Rocky Mountain areas.

Hourly departures were most frequent between 1400 to 1600 and lowest from 0300 to 0500. Hourly arrivals reached their highest point from 1600 to 1700 and their lowest between 0500 to 0700. The instantaneous airborne count at the beginning of each hour was highest at 1500 to 1700 and dropped to its lowest point from 0400 to 0600.

The most frequent duration of flight was 1 to 2 hours (30.9%), followed by 2 to 3 hours (19.9%). Jet aircraft flew most often from 1 to 2 hours (43.2%), piston aircraft 2 to 3 hours (21.8%), turbo-prop aircraft 1 to 2 hours (25.9%), and helicopters 1 to 2 hours (33.0%).

The most frequently used altitudes were from 3,000 to 8,000 feet, making up 41.6% of the total flight activity. Next were 24,000 feet and over at 33.1%, followed by 15,000 to 24,000 feet at 11.1%. 9,000 to 15,000 feet at 9.8%, and 0 to 3,000 feet at 4.4%. VFR aircraft flew most frequently (66.0%) at altitudes between 3,000 to 8,000 feet. 50.7% of the IFR flights were over 24,000 feet, while a lesser amount (23.8%) was concentrated from 3,000 to 8,000 feet. The pictorial presentations of aircraft movements by altitude strata indicate a decided difference in traffic flow across the country. Flights in the western portion of the 0 to 3,000 feet pictorial presentation were "Fair Ball" routes incorrectly coded as mean sea level. The distinct triangle appearing in southeastern Texas represents the traffic flow of T-29 navigation training flights from Harlingen AFB. These flights were given this uniform traffic pattern because more specific information was not available.

Jet aircraft utilized speeds of 350 to 450 knots 80.0% of the time. 80.8% of the piston aircraft speed usage was from 100 to 200 knots. Turbo-props flew at speeds of 250 to 300 knots 70.7% of the time. 96.9% of the helicopters operated at speeds of 50 to 100 knots.

Distances from 0 to 599 nautical miles were flown by 67.3% of all aircraft. This distance was flown by 59.7% Jet, 72.5% Piston, 46.6% Turbo-prop, and 100.0% of the Helicopters. Flights within this range were made by 59.3% of the Air Force, 82.7% of the Navy, and 93.2% of the Army aircraft.

IFR flights accounted for 57.9% of the flight plans filed and VFR flights accounted for 42.1%. The Air Force filed 69.6% IFR and 30.4% VFR flights. The Navy made 60.1% VFR and 39.9% IFR flights. 90.7% of the Army flights were VFR and 9.3% IFR. Total hours airborne were 67.1% IFR and 32.9%

VFR. The Air Force flew 78.7% of its airborne hours IFR and 21.3% VFR. Navy airborne hours were 43.2% IFR and 56.8% VFR. Only 8.6% of the Army hours airborne were IFR, while 91.4% were VFR. There were 126 DVFR flights (VFR flights within an Air Defense Identification Zone). A majority (85.7%) of DVFR activity was flown by the Navy between ship and shore.

Point-to-point flights accounted for 78.4% of the flights and 62.2% of the hours airborne. Round-robin activity made up only 21.6% of the flights and 37.8% of the airborne hours. Point-to-point flights consisted of 67.2% Air Force, 22.5% Navy, and 10.3% Army. 80.6% of the round-robin flights were Air Force, 14.1% Navy, and 5.3% Army. Point-to-point hours airborne were 68.9% Air Force, Navy 20.9% and Army 10.2%. Round-robin hours were 85.5% Air Force, 9.8% Navy, and 4.7% Army.

Comparison of FY 1961 and FY 1958 cross-country busy day activity indicates: (1) a decrease of 18.8% flights; (2) a 5.5% decrease in the hours airborne; (3) reasonably similar average altitudes; (4) an increase in average speed of 7.9%; (5) an 11.2% increase in the average duration of flight; (6) a 14.5% increase in the ratio of jet to piston aircraft; (7) Minor increases in Air Force (2.9%) and Army (1.7%) portions of the total activity and a decrease (4.6%) in the Navy.

APPENDIX - TABLE 1  
 HOURLY DISTRIBUTION OF TOTAL MOVEMENTS, DEPARTURES, AND ARRIVALS  
 BY FLIGHT RULE AND INSTANTANEOUS AIRBORNE COUNT  
 (Percent)

Hour (EST)	Total Movements			Departures			Arrivals			IAC		
	Total	IFR		VFR	Total		IFR	VFR	IFR	At Beginning of Hour		
		IFR	VFR		IFR	VFR	IFR	VFR	IFR	Total	IFR	VFR
0000	1.6	2.0	1.0	0.9	1.3	0.4	2.3	2.7	1.7	7.0	9.9	3.1
0100	1.1	1.5	0.5	0.5	0.6	0.2	1.7	2.4	0.8	5.7	8.5	1.8
0200	0.9	1.2	0.4	0.4	0.6	0.1	1.4	1.8	0.7	4.4	6.8	1.2
0300	0.6	0.9	0.3	0.3	0.4	0.1	1.0	1.5	0.4	3.4	5.5	0.6
0400	0.5	0.7	0.2	0.3	0.4	0.2	0.7	1.0	0.2	2.7	4.3	0.4
0500	0.6	0.8	0.3	0.6	0.7	0.4	0.6	0.9	0.1	2.3	3.7	0.4
0600	1.1	1.1	1.1	1.5	1.4	1.7	0.6	0.7	0.4	2.3	3.5	0.7
0700	2.2	2.1	2.2	3.3	3.2	3.4	1.0	1.0	1.0	3.2	4.1	1.9
0800	3.6	3.4	3.8	5.1	4.9	5.4	2.0	1.8	2.2	5.5	6.3	4.3
0900	5.1	4.8	5.6	7.1	6.9	7.3	3.1	2.6	3.8	8.7	9.4	7.6
1000	5.9	5.8	6.1	7.4	7.7	7.1	4.4	3.8	5.1	12.6	13.8	11.1
1100	6.6	6.2	7.1	7.3	7.3	7.2	5.9	5.0	7.1	15.8	17.7	13.1
1200	6.3	5.5	7.4	6.6	6.0	7.4	6.0	5.1	7.3	17.1	20.0	13.2
1300	6.8	6.3	7.6	7.4	6.9	8.3	6.3	5.8	7.0	17.7	20.9	13.3
1400	7.5	6.7	8.8	8.1	6.9	9.7	7.1	6.6	7.8	18.8	21.9	14.6
1500	8.1	7.3	9.3	8.1	7.0	9.7	8.1	7.6	8.8	19.8	22.2	16.4
1600	7.9	7.5	8.4	7.0	6.3	7.8	8.8	8.7	9.0	19.8	21.7	17.2
1700	7.3	7.3	7.5	6.4	6.4	6.4	8.3	8.2	8.6	18.0	19.4	16.0
1800	7.0	7.2	6.7	6.0	6.3	5.4	8.0	8.1	7.9	16.0	17.6	13.8
1900	6.1	6.5	5.5	5.6	6.0	5.1	6.5	7.0	5.9	14.0	16.0	11.4
2000	5.0	5.6	4.1	4.2	5.0	3.2	5.7	6.1	5.1	13.1	15.0	10.5
2100	3.6	4.1	2.8	2.8	3.5	1.7	4.4	4.7	4.0	11.6	13.9	8.6
2200	2.7	3.1	2.1	1.8	2.4	1.2	3.6	3.9	3.2	10.0	12.7	6.4
2300	1.9	2.4	1.2	1.3	1.8	0.6	2.5	3.0	1.9	8.3	11.1	4.4
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	*

Flights 10,282 5,954 4,328 5,141 2,977 2,164 5,141 2,977 2,164  
 \* IAC divided by total daily flights gives a total percentage greater than 100%

APPENDIX - TABLE 2  
Military Cross-Country Flying: Flights, Times, Speeds, Altitudes, by Service and  
Type Aircraft, Continental United States, Representative Busy Day FY 1961

Service and Type Aircraft	Current Designation	Former Designation	Flights (Number)	Hours Total	Airborne Average	Average Speed (Knots)	Average Altitude (000 feet)	Distance Flown (Nautical Miles)	
								Total	Average
<b>Total-All Services</b>			<u>5,141</u>	<u>15,324</u>	<u>2:59</u>	<u>259</u>	<u>16</u>	<u>771</u>	<u>3,972.074</u>
<b>Air Force</b>			<u>3,602</u>	<u>11,523</u>	<u>3:12</u>	<u>288</u>	<u>19</u>	<u>922</u>	<u>3,320.612</u>
<b>Bomber</b>									
Jet									
B-47	Same		313	1,727	5:31	423	27	2,334	730,542
B-52	"		98	816	8:20	441	29	3,675	360,150
B-57	"		57	120	2:06	411	28	863	49,191
B-58	"		3	18	5:33	515	33	2,858	8,574
B-66	"		8	19	2:25	430	26	1,039	8,312
Prop									
B-25	Same		1	3	3:11	180	8	573	573
B-26	"		8	24	2:59	230	7	686	5,488
B-50	"		46	5:48	5:48	260	14	1,508	12,064
<b>Fighter</b>									
Jet									
F-84	Same		40	45	1:07	443	29	495	19,800
F-86	"		63	53	1:52	405	27	351	22,113
F-89	"		26	35	1:22	398	27	544	14,144
F-100	"		75	143	1:54	488	28	927	69,525
F-101	"		16	27	1:42	482	32	819	13,104
F-102	"		21	23	1:06	485	31	534	11,214
F-104	"		12	12	1:04	520	33	555	6,660
F-105	"		2	3	1:20	505	32	673	1,346
F-106	"		2	2	1:08	540	35	612	1,224

Appendix - Table 2

Current Designation	Former Designation	Flight (Number)	Hours Airborne Total Average	Average Speed (Knots)	Average Altitude (000 feet)	Distance Flown (Nautical Miles)	
						Average	Total
<b>Reconnaissance</b>							
Jet							
<b>RB-47</b>	<b>Same</b>	4	17	4:15	420	28	1,785
<b>RB-57</b>	"	2	5	2:42	417	28	1,126
<b>RB-66</b>	"	1	2	2:09	445	17	957
<b>RF-84</b>	"	2	2	1:11	432	31	511
<b>RF-101</b>	"	1	2	1:37	487	33	787
Prop							
<b>RC-47</b>	<b>Same</b>	1	3	2:45	145	6	399
<b>RB-50</b>	"	1	4	4:00	250	12	1,000
<b>RC-121</b>	"	1	12	12:30	200	7	2,500
<b>RC-130</b>	"	1	2	2:00	280	14	560
<b>Tanker</b>							
Jet							
<b>KC-135</b>	<b>Same</b>	90	484	5:23	441	29	2,374
Prop							
<b>KB-50</b>	<b>Same</b>	5	21	4:10	260	20	1,083
<b>KC-97</b>	"	97	607	6:17	219	14	1,376
							<b>213,660</b>
							<b>5,415</b>
							<b>133,472</b>

Appendix - Table 2

Current Designation		Former Designation	Flights (Number)	Hours Airborne Total	Average Speed (Knots)	Average Altitude (000 feet)	Average (Nautical Miles)	Distance to Town Total
<b>Search &amp; Rescue</b>								
Prop HU-16	SA-16	20	58	2:54	148	5	429	8,580
HC-47	SC-47	4	14	3:41	138	6	508	2,032
HC-130	SC-130	1	3	3:18	290	24	957	957
<b>Utility</b>								
Jet U-2	Same	4	24	5:53	415	35	2,442	9,768
Prop U-3	Same	135	346	2:34	164	6	421	56,835
U-4	"	7	20	2:55	144	6	420	2,940
<b>Transport</b>								
Jet C-135	Same	2	9	4:29	441	31	1,977	3,954
Prop C-45	Same	52	114	2:11	143	6	312	16,224
C-47	"	490	1,597	3:16	142	6	464	227,360
C-54	"	81	343	4:14	179	7	758	61,398
C-97	"	35	179	5:08	219	10	1,124	39,340
C-117	"	5	18	3:42	141	6	522	2,610
C-118	"	41	194	4:44	233	13	1,103	45,223

Appendix - Table 2

Appendix - Table 2

Current Designation	Former Designation	Flights (Number)	Hours Airborne Total	Average	Average Speed (Knots)		Average Altitude (000 feet)	Distance Flown (Nautical Miles)	
					Total	Average		Total	Average
AF-9	F9F-8B	2	2 : 55	416			30	381	762
Prop	A-1	AD	96	2:07	187		8	396	17,820
<b>Fighter</b>									
Jet									
F-1	FJ	20	28	1:24	443		36	620	12,400
F-2	F2H	4	5	1:08	388		28	440	1,760
F-3	F3H	6	6	:57	406		27	386	2,316
F-6	F4D	9	9	1:02	453		24	468	4,212
F-8	F8U	25	31	1:14	484		28	597	14,925
F-9	F9F	82	103	1:15	435		30	544	44,608
F-11	F11F	7	7	:57	468		27	445	3,115
<b>Reconnaissance</b>									
Jet	RF-9	F9F-8P	1	1	1:24	450		32	630
<b>Anti-Submarine</b>									
Prop	S-2F	93	246	2:39		161	5	427	39,711
Warning Prop	WV	9	37	4:37		212	9	979	7,844
EC-121	WF	2	7	3:30		150	5	525	1,050

Appendix - Table 2

Current Designation	Former Designation	Flights (Number)	Hours Total	Hours Airborne	Average (Knots)	Distance Flown (Nautical Miles)	
						Average Speed (Knots)	Average Altitude (000 feet)
<b>Patrol</b>							
Prop							
P-2	P2V	45	244	5:25	181	6	44,100
P-5	P5M	9	58	6:26	156	4	9,036
<b>Observation</b>							
Prop	OE	3	6	1:49	108	4	196
<b>Transport</b>							
Prop	TF	32	70	2:11	178	6	389
C-1	SNB	267	654	2:27	141	6	345
C-45	R4D	85	220	2:35	168	6	36,890
C-47	R5D	65	175	2:42	178	6	434
C-54	R6D	10	45	4:27	232	10	481
C-118	R4Q	19	48	2:33	173	6	10,320
C-119	R7V	2	3	1:36	267	11	441
C-121	R4Y	32	84	2:37	204	9	8,379
C-131	JRB	3	8	2:41	136	4	427
*							854
<b>Utility</b>							
Prop	UO	2	5	2:17	162	7	370
U-11	UF	16	43	2:42	153	5	740
U-16	JD	3	7	2:11	193	4	6,608
UB-26							413
							1,263
							421

Appendix - Table 2

Current Designation	Former Designation	Flights (Number)	Hours Airborne		Average Speed (Knots)	Average Altitude (000 feet)		Distance Flown (Nautical Miles)	Total
			Total	Average		Average	Total		
<b>Training</b>									
Jet									
T-1	T2V	15	21	1:22	373	31	510	7,650	
T-2	T2J	4	6	1:33	315	20	488	1,952	
TF-9	F9F-8T	14	19	1:23	429	32	593	8,302	
TF-10	F3D-2T	8	8	:58	358	23	346	2,768	
T-33	TV	25	37	1:29	352	26	522	13,050	
<b>Helicopter</b>									
TH-13	HTL	1	2	1:45	75	2	131	131	
CH-19	HRS	6	12	2:02	64	2	130	780	
UH-19	H04S	1	1	1:33	90	2	137	137	
UH-25	HUP	8	14	1:46	78	2	138	1,104	
SH-34	HSS	7	13	1:51	91	2	168	1,176	
UH-34	HUS	11	20	1:52	87	2	162	1,782	
CH-37	HR2S	2	3	1:37	85	2	137	274	
UH-43	HUK	1	1	:50	55	2	46	46	
<b>Lighter than Air</b>									
Z-1	ZPG	1	32	32:00	43	-	1,376	1,376	
<b>Army</b>									
Utility Prop		<u>474</u>	<u>1,239</u>	<u>2:36</u>	<u>107</u>	<u>5</u>	<u>280</u>	<u>132,865</u>	
U-1	U-1	36	100	2:46	105	5	291	10,476	
U-6	L-20	165	431	2:36	107	5	278	45,870	

Appendix - Table 2

Current Designation	Former Designation	Flights (Number)	Hours Total	Airborne Average	Distance Flown (Nautical Miles)		
					Average Speed (Knots)	Average Altitude (000 feet)	Average Total
U-8	L-23	81	190	2:20	158	6	369
U-9	L-26	8	17	2:04	160	5	331
*	L-17	5	6	1:08	107	4	121
Observation							29,889 2,648 605
Prop							29,889 2,648 605
O-1	L-19	105	278	2:39	93	4	246
OV-1	AO	1	6	5:34	200	5	1,113
Training							25,830 1,113
Prop							25,830 1,113
T-0-1	TL-19	12	32	2:40	102	4	272
Stol							3,264
Prop							3,264
CV	AC	1	1	1:12	150	6	180
Helicopter							180
UH-1	HU	2	9	4:34	79	2	361
OH-13	H-13	10	39	3:48	63	2	239
UH-19	H-19	10	28	2:46	67	2	185
CH-21	H-21	18	42	2:20	79	2	184
OH-23	H-23	4	9	2:17	60	2	137
CH-34	H-34	12	38	3:07	82	2	256
CH-37	H-37	4	13	3:18	83	2	274
Helicopter							274
UH-1	HU	2	9	4:34	79	2	361
OH-13	H-13	10	39	3:48	63	2	239
UH-19	H-19	10	28	2:46	67	2	185
CH-21	H-21	18	42	2:20	79	2	184
OH-23	H-23	4	9	2:17	60	2	137
CH-34	H-34	12	38	3:07	82	2	256
CH-37	H-37	4	13	3:18	83	2	274
Helicopter							274

\* Aircraft models which have not been redesignated and are no longer in the active inventory